

## REMARKS

In accordance with the foregoing, claims 1, 3, 7, 9, 13, 15 and 19 are amended and new claim 20 is presented. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1, 3, 4-7, 9-13 and 15-20 are pending and under consideration. Reconsideration is requested.

### Statement On Substance of Interview

An in-person interview was conducted between the Applicants' representative and the Examiner on August 28, 2008. Applicants appreciate the opportunity to conduct the interview.

During the interview, Applicants' representative discussed with the Examiner features of the subject application that patentably distinguish over the current art of record. The Examiner agreed that a clarification of the recited "pair of blocks" would further distinguish the claims from the art currently relied on. (See, Interview Summary).

The Examiner further indicated that such amendments would require further search and thus a final first Office Action would not be issued if such amendments were filed.

### Claim Amendments

Claim 1 is amended herein to recite an apparatus including "... an extracting unit that extracts pairs of blocks from the plurality of blocks and outputs a feature index of a first color component and a feature index of a second color component for each of the paired blocks; . . . and a code embedding unit that embeds a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered, and embeds one code corresponding to the paired blocks, based on a magnitude relationship between feature indices of color components related to the paired blocks. (Amendatory language being underlined). Claims 7, 13, and 19 are similarly amended herein.

Dependent claims 3, 9 and 15 are amended accordingly. Support for the amendments is found, for example in Figs 1, 6, 10A, and 16A and page 11 line 25 - page 14, line 12 of the specification. No new matter is being presented, and approval and entry are respectfully requested.

### Item 4: Rejection of claims 1, 3-4, 6-7, 9-10, 12-13, 15-16 and 18-19 under 35 U.S.C. 102(b) as being anticipated by Reed (US Pat. App Pub 2002/0164052)

In item 4 of the Office Action, the Examiner rejects claims 1, 3-4, 6-7, 9-10, 12-13, 15-16 and 18 -19 under 35 U.S.C. §102(b) as being anticipated by Reed. (Action at pages 3-5). The

rejection is traversed.

As set forth in MPEP §2131, to establish anticipation under §102, the reference relied on in support of the rejection must teach each and every element of the claim and the identical invention must be shown in as complete detail as in the claim.

Applicants submit that Reed does not support an anticipatory-type rejection by not describing each and every element of the claims. Independent claim 1, as amended herein, recites an image data processing apparatus including:

- a) "a dividing unit that divides image data into a plurality of blocks;"
- b) "an extracting unit that extracts pairs of blocks from the plurality of blocks and outputs a feature index of a first color component and a feature index of a second color component for each of the paired blocks(emphasis added);"
- c) "a registration unit that registers information about a correspondence between the feature index of the second color component and a change in the feature index for the first color component;" and
- d) "a code embedding unit that embeds a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered, and embeds one code corresponding to the paired blocks, based on a magnitude relationship between feature indices of color components related to the paired blocks (emphasis added)." Independent claims 7 and 13 have similar recitations.

As discussed during the in-person interview, Applicants submit that Reed does not teach an apparatus that "extracts pairs of blocks . . . outputs a feature index of a first color component and a feature index of a second color component for each of the paired blocks and further "embeds one code corresponding to the paired blocks, based on a magnitude relationship between feature indices of color components related to the paired blocks," as recited by claim 1, for example.

On page 2 of the Office Action, entitled Response to Arguments, the Examiner asserts that Reed teaches:

[The watermark code is embedded redundantly, and thus corresponds to at least a pair of blocks...magnitude of the feature indices is modified between blocks so that the embedding is performed consistently throughout the media... and is thus based on a magnitude relationship between the feature indices of color component related to the pair of blocks.

(Action at page 2, line 27 - page 3, line 3).

As discussed during the interview, however, Applicants submit that by contrast, Reed merely teaches:

[M]edia 12 is segmented into a plurality of blocks (FIG. 9). Here a block size can range from a pixel to a group of pixels. We redundantly embed an image or watermark signal in each of (or a subset of) the blocks.

(Emphasis added, See, for example, paragraph [0042]).

That is, Reed merely segments blocks into a plurality of blocks. Applicants submit that segmenting blocks into a plurality of blocks does as disclosed by Reed does not teach a pairing of the blocks. As understood by one of ordinary skill in the art, a pairing teaches a relationship of one item to one other item. (See, for example, the specification disclosing a pairing of each "two adjacent blocks" page 11, line 25 - page 26 line 1).

Further, Reed discloses redundantly embedding an image or watermark signal in each of (or a subset of) the blocks. As discussed during the interview, Applicants submit that "redundantly" embedding an image or a signal teaches, by definition, that a same image or same signal is embedded at least twice. Thus, Reed teaches embedding at least twice a image or signal in each of the blocks.

Applicants submit that such a redundant embedding does not teach embedding "embeds one code corresponding to the paired blocks, based on a magnitude relationship between feature indices of color components related to the paired blocks," as recited by claim 1, for example.

Dependent claims 3-4, 6, 9-10, 12, 15-16 and 18 (depending from claims 1, 7 and 13, respectively) recite patentably distinguishing features of their own, and further, are at least patentably distinguishing due to their dependencies from independent claims 1, 7, and 13.

### **Summary**

Since the features recited by each of independent claims 1, 7, and 13 (and respective dependent claims 3-4, 6, 9-10, 12, 15-16 and 18) are not taught by the art relied on by the Examiner, the rejection should be withdrawn and claims 1, 3-4, 6-7, 9-10, 12-13, 15-16 and 18-19 allowed.

### **Item 6: Rejection of claims 5, 11 and 17 under 35 U.S.C. §103(a) as being unpatentable over Reed and DeProspero (U.S. Pat. App Pub 2002/0040648)**

In item 6 of the Office Action, the Examiner rejects dependent claims 5, 11 and 17 under 35 U.S.C. §103(a) as being unpatentable over Reed and DeProspero. (Action at pages 5-6). The rejection is traversed.

Applicants submit independent claims 1, 7, and 13 patentably distinguish over Reed for at least the reasons stated above. Applicants submits that nothing in DeProspero's disclosure cited by the Examiner, or elsewhere, alone or in combination with Reed overcomes the deficiencies in support of an establishment of *prima facie* obviousness in overcoming features recited by independent claims 1, 7, and 13, for example.

Thus, dependent claims 5, 11, and 17 including at least features of respective parent claims 1, 7, and 13 also patentably distinguish over a combination of Reed and DeProspero.

Applicants submit this traversal meets the Consideration of Applicant's Rebuttal Evidence Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* of October 3, 2007 and the elements in combination do not merely perform the function that each element performs separately, and the results of the claimed combination were unexpected.

### **Summary**

Since features recited by dependent claims 5, 11, and 17 are not taught by the cited art, the rejections should be withdrawn and claims 5, 11, and 17 allowed.

### **New Claim 20**

New claim 20 is presented to recite features in a different manner. Claim 20 recites a image data processing method including "pairing blocks of image data; and embedding a code into each pair of the paired blocks based on a magnitude relationship between feature indices of color components related to the respective pair of the paired blocks."

Support for the amendment is found, for example in Figs 1,6, 10A, and 16A and page 11 line 25 - page 14, line 12 of the specification. No new matter is presented and, accordingly, approval and entry are respectfully requested.

These features of claim 20 patentably distinguish over the cited art, and they are submitted to be allowable for the recitations therein.

### **Conclusion**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge

the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Paul W. Bobowiec  
Paul W. Bobowiec  
Registration No. 47,431

1201 New York Ave, N.W., 7th Floor  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501